

ABSTRACT

A vaporizer generates vapor by vaporizing a liquid. In particular, a vaporizer generates fuel vapor that is used for reforming fuel by vaporizing a liquid fuel that contains a hydrocarbon. This vaporizer includes a heating gas direct movement flow path along which a heating gas flows by moving directly in a horizontal direction; vaporization flow paths that are positioned such that they can exchange heat with the heating gas direct movement flow path, and that vaporizes liquid fuel; a fuel supply pipe that supplies the liquid fuel to the vaporization flow paths; and a vapor flow path that is positioned in an upstream portion on the heating gas direct movement flow path from the vaporization flow paths and that heat fuel vapor that is discharged from the vaporization flow paths. Fuel vapor that is generated on the vaporization flow paths circulates upwards in the direction of gravity along the vaporization flow paths, and subsequently is discharged from a top portion of the vaporization flow paths and is introduced into the vapor flow path. The fuel vapor then circulates in the direction of gravity along the vapor flow path.